OREGON COASTAL NONPOINT PROGRAM
NOAA/EPA PROPOSED FINDING

C. ADDITIONAL MANAGEMENT MEASURES - FORESTRY

PURPOSE OF MANAGEMENT MEASURE: The purpose of this management measures is to identify additional management measures necessary to achieve and maintain applicable water quality standards and protect designated uses for land uses where the 6217(g) management measures are already being implemented under existing nonpoint source programs but water quality is still impaired due to identified nonpoint sources.

CONDITION FROM JANUARY 1998 FINDINGS: [add correct condition]

PROPOSED FINDING: Disapproval

RATIONALE:

Buffers for Herbicide Application on Type N Streams: The federal agencies' January 13, 1998, conditional approval findings noted that Oregon had published forest practices rules that require buffer zones for most pesticide applications (OAR 629-620-0400(7)(b)). However, these rule changes did not address aerial application of herbicides on non-fish bearing streams. Therefore, NOAA and EPA noted that the state needed to adopt additional management measures for forestry to provide better protection on non-fish bearing streams during the aerial application of herbicides.

Non-fish bearing streams comprise a significant portion of the total stream length within the coastal nonpoint management area and many flow directly to fish-bearing streams and/or drinking water supply areas. Aerial application of herbicides, such as glyphosate, *** and others, is a common practice in the forestry industry. Herbicides are sprayed to control weeds on recently harvested parcels to prevent competition with newly planted tree saplings.

Research has shown that aerial application of these herbicides by the forestry industry impairs water quality and can negatively affect salmon populations and drinking water supplies. For example….[insert specific studies that support this statement or modify statement for what we can support with good science. Refute science that state included in March 2014 submission that they say shows that existing practices are fine [??? Not sure if we need to acknowledge that the state said X but could say that while some studies have indicated….there are some flaws…..]

Since its 1998 conditional approval findings, Oregon has provided several documents describing the programs it relies on to manage pesticides, most recently in March 2014. In addition to the FPA rule buffers noted above, the state also addresses pesticide issues through the Chemical and Other Petroleum Product Rules (OAR 629-620-0000 through 800), Pesticide Control Law (ORS 634), best management practices set by the ODA, and federal pesticide label requirements under

the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as well as its voluntary Water Quality Pesticide Management Plan and the state's Pesticide Stewardship Partnership Program. In its March 2014 submittal, Oregon noted that it specifically relies on best management practices set by ODA and EPA under FIFRA for the protection of small non-fish bearing streams. Ex. 5 - Deliberative

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Ex. 5 - Deliberative For aerial application, the current national risk assessment process assumes application occurs 10 feet above the crop canopy over relatively flat land. Ex. 5 - Deliberative

Ex. 5 - Deliberative However, in Oregon, aerial application often occurs 70 to 80 feet above the crop canopy and over steep terrain, enabling the chemicals to more readily drift into adjacent waterways.

As the result of several pesticide-related lawsuits regarding how federal agencies evaluate the impacts of pesticides on ESA-listed species and establish label requirements, EPA, the National Marine Fisheries Service, the U.S. Fish and Wildlife Service, and the U.S. Department of Agriculture requested the National Academies of Science to review existing methods for assessing pesticide risk to listed species and to recommend improvements to the risk assessment process. The federal agencies have agreed to work jointly to implement the study's recommendations, which were released April 30, 2013, in a phased, iterative approach over the next 15 years. As a result, the agencies are in the process of modifying the methods for risk assessment that may affect the future labeling requirements and best management practices for herbicide applications. [citations???].

While the federal agencies are moving forward with a national solution with how risk assessments for pesticide label requirements are conducted, that does not preclude Oregon from taking action to ensure water quality and designated uses are protected in its own state before the federal process is complete. FIFRA allows states to develop more stringent pesticide requirements than those required under FIFRA to address the unique conditions of pesticide use and application in their states. Some states have chosen to do this. Therefore, NOAA and EPA recommend Oregon adopt additional pesticide rules to ensure adequate buffers are provided along all waterbodies, not just fish-bearing streams, within Oregon's coastal nonpoint management area during aerial spraying of all pesticides, including herbicides.

In addition to its reliance on federal label requirements, Oregon has taken independent steps to further address pesticide water quality issues. In 2007, key state agencies, including ODA, ODF, ODEQ, and the Oregon Health Authority, worked together to develop an interagency Water Quality Pesticide Management Plan to guide State-wide and watershed-level actions to protect

surface and groundwater from potential impacts of pesticides, including herbicides. The plan, approved by EPA Region 10 in 2011, focuses on using water quality monitoring data as the driver for adaptive management actions. The plan describes a continuum of management responses, ranging from voluntary to regulatory actions the state could take to address pesticide issues. If water quality concerns cannot be addressed through the collaborative, interagency-effort, regulatory actions are taken using existing agency authorities.

As outlined in the plan, the State's Pesticide Stewardship Partnership (PSP) Program is the primary mechanism for addressing pesticide water quality issues at the watershed level. Through the partnership, the ODEQ works with State and local partners to collect and analyze water samples and use the data to focus technical assistance and best management practices on streams and pesticides that pose a potential aquatic life or human health impact.

NOAA and EPA acknowledge the progress Oregon has made in its establishment of a multi-agency management team, development of its Water Quality Pesticide Management Plan, and implementation of its PSP Program. However, the federal agencies note that water quality monitoring data on pesticides is still limited in the State, and that Oregon has only established eight PSP monitoring areas in seven watersheds, none of which are within the coastal nonpoint management area. While NOAA and EPA recognize that the PSP program is expanding into two new watersheds, the agencies believe that, if monitoring data are to drive adaptive management, the State should develop and maintain more robust and targeted studies of the effectiveness of its pesticide monitoring and best management practices within the coastal nonpoint management area. The federal agencies encourage the State to design its monitoring program in consultation with EPA and NMFS so that it generates data that are also useful for EPA pesticide registration reviews and NMFS biological opinions that assess the impact of EPA label requirements on listed species.

Finally, while EPA, NMFS, and the other federal agencies, work through a new pesticide registration process and litigation to protect water quality, people, and aquatic life, NOAA and EPA recommend Oregon update its Water Quality Pesticide Management Plan include the following recommended best management practices:

- Specific buffer widths for the aerial application of herbicides over non-fish bearing streams. In establishing specific buffer widths, NOAA and EPA recommend the state look to buffers NMFS recommended in its biological opinions for various herbicides;
- Aerial application guidelines for herbicides to control drift such as reduced droplet size, consideration of terrain and weather conditions, and better mapping of spray application area;
- Better, more timely, specific, and transparent, public notification process for all citizens near spray areas, not just notifying community water managers prior to spraying;
- Better record keeping and transparency of public records;
- Increased training and guidance for applicators on the recommended best management practices; and

- Increased effectiveness monitoring of pesticides and best management practices within the coastal nonpoint management area

Absent a rule change to require buffers during aerial spraying of herbicides, strengthening its Water Quality Pesticide Management Plan and Pesticide Stewardship Partnership program as described above, could enable Oregon demonstrate it has addressed the pesticide aspect of its additional management measures for forestry condition. However, because the recommended best management practices and more robust training for applicators would be a voluntary approach, Oregon would also need to meet the other requirements of using voluntary, incentive-based programs to meet CZARA requirements. This includes describing the process the state will use to monitor and track implementation of the voluntary practices, providing a legal opinion stating it has the necessary back-up authority to require implementation of the voluntary measures, when necessary, and demonstrating a commitment to use that back-up authority.

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Non-fish bearing streams comprise a significant portion of the total stream length within the coastal nonpoint management area and many flow directly to fish-bearing streams and/or drinking water supply areas. Aerial application of herbicides, such as glyphosate, *** and others, is a common practice in the forestry industry. Herbicides are sprayed to control weeds on recently harvested parcels to prevent competition with newly planted tree saplings.

Comment [AC1]: More specific?

Comment [AC2]: Do we have better stats on percentage??

Comment [AC3]: Is this correct. Is it used for other purposes too?

Research has shown that aerial application of these herbicides by the forestry industry impairs water quality and can negatively affect salmon populations and drinking water supplies. For example….[insert specific studies that support this statement or modify statement for what we can support with good science. Refute science that state included in March 2014 submission that they say shows that existing practices are fine [??? Not sure if we need to acknowledge that the state said X but could say that while some studies have indicated….there are some flaws…..]

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Ex. 5 - Deliberative For aerial application, the current national risk assessment process assumes application occurs 10 feet above the crop canopy over relatively flat land. In addition, the risk assessment process does not currently evaluate the specific impacts of the pesticide to salmon listed under the Endangered Species Act. However, in Oregon, aerial application often occurs 70 to 80 feet above the crop canopy and over steep terrain, enabling the chemicals to more readily drift into adjacent waterways.

Comment [AC4]: So this is 70-80 ft above the tree tops or 70-80 feet above the land since the trees are so high? Rather than crop, would be good to use "tree canopy" for better clarity if that is an accurate statement.

As the result of several pesticide-related lawsuits regarding how federal agencies evaluate the impacts of pesticides on ESA-listed species and establish label requirements, EPA, the National Marine Fisheries Service, the U.S. Fish and Wildlife Service, and the U.S. Department of Agriculture requested the National Academies of Science to review existing methods for assessing pesticide risk to listed species and to recommend improvements to the risk assessment process. The federal agencies have agreed to work jointly to implement the study's recommendations, which were released April 30, 2013, in a phased, iterative approach over the next 15 years. As a result, the agencies are in the process of modifying the methods for risk assessment that may affect the future labeling requirements and best management practices for herbicide applications. [citations???].

While the federal agencies are moving forward with a national solution with how risk assessments for pesticide label requirements are conducted, that does not preclude Oregon from taking action to ensure water quality and designated uses are protected in its own state before the federal process is complete. FIFRA allows states to develop more stringent pesticide requirements than those required under FIFRA to address the unique conditions of pesticide use and application in their states. Some states have chosen to do this. Therefore, NOAA and EPA recommend Oregon adopt additional pesticide rules to ensure adequate buffers are provided along all waterbodies, not just fish-bearing streams, within Oregon's coastal nonpoint management area during aerial spraying of all pesticides, including herbicides.

Comment [AC5]: Can we say, including WA and CA that are also dealing with similar forestry and salmon conditions as Oregon? Do we know of WA and CA have better buffer requirements for aerial application of herbicides?

Comment [AC6]: Are we comfortable saying this even though the fed agencies are taking longer to get their houses in order?

In addition to its reliance on federal label requirements, Oregon has taken independent steps to further address pesticide water quality issues. In 2007, key state agencies, including ODA, ODF, ODEQ, and the Oregon Health Authority, worked together to develop an interagency Water Quality Pesticide Management Plan to guide State-wide and watershed-level actions to protect

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- Better record keeping and transparency of public records;
- Increased training and guidance for applicators on the recommended best management practices; and

Comment [AC7]: But if NMFS is re-doing some of these biops, is this a valid recommendation? Feel like we should give them some recommendation of the level of voluntary protection we're looking for (at least 60 ft to match existing state rule for other issues?) See last para.

- Increased effectiveness monitoring of pesticides and best management practices within the coastal nonpoint management area

Absent a rule change to require buffers during aerial spraying of herbicides, strengthening its Water Quality Pesticide Management Plan and Pesticide Stewardship Partnership program as described above, could enable Oregon demonstrate it has addressed the pesticide aspect of its additional management measures for forestry condition. However, because the recommended best management practices and more robust training for applicators would be a voluntary approach, Oregon would also need to meet the other requirements of using voluntary, incentive-based programs to meet CZARA requirements. This includes describing the process the state will use to monitor and track implementation of the voluntary practices, providing a legal opinion stating it has the necessary back-up authority to require implementation of the voluntary measures, when necessary, and demonstrating a commitment to use that back-up authority.